THE AMERICAN ARCHITECT AND BUILDING NEWS.

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PARIS and Vienna have their new grand opera-houses, Berlin has one in hand, and London's is nearing completion; and now Mr. Max Strakosch comes forward to build one in New York. He purposes to raise by subscription a very large sum of money, — we are afraid to say how high we have seen it set in the newspapers, — and, buying the square of land on which Barnum's Hippodrome stands, there to build an opera-house which shall hold an audience of five thousand. It would be very agreeable to architects to have a really fine opera-house in New York or in any other city of the country; but we do not think there is much promise in Mr. Strakosch's scheme, apart from its financial bearings, which we have no occasion to discuss. In the first place, we do not believe in a theatre or opera-house which will contain five thousand seats. The largest theatres in use at present hold but few more than two thousand spectators; and they are already too large for the best effect of most operas. The late M. Berlioz, an authority in such matters, writing on this subject, remarks that many operas fell flat at the old Grand Opera in Paris, which were effective in smaller theatres. The truth is that for a musical as well as for a simple dramatic performance the spectator must be near enough not only to hear the performers, but to feel their influence, and to see their faces well. To arrange an audience of five thousand near enough to the stage for this is practically impossible, unless in an amphitheatre. Most of the standard operas would be ineffective in an auditorium of such capacity. The only music that would tell in it would be such violently scored works as those of Wagner, Meyerbeer, and Verdi. Without meddling with musical discussions, we may say that it would be demoralizing to the public, and ruinous to singers' voices, if the great opera-house of New York were made unsuitable for all music but that of the noisiest kind. But apart from this, Mr. Strakosch's announcement makes it evident either that he means to do a bad thing, or that he does not know how to do a good thing. He proposes to open his opera-house — Temple he calls it — in nine or ten months. To build a good theatre on such a scale in this time is of course preposterous. The architect ought to have several months in which to study such a work before it was begun; and two years would be a shortest time in which it would be safe to think of building it properly. The result of any attempt to do it in such a hurry could only result in a contemptible sham or a lamentable failure. We may therefore dismiss the project as foolish and impracticable. Perhaps it was not worth while to discuss it *au serieux;* but if public discussion of it will prevent anybody from investing money in a wild scheme it is desirable to speak of it, and the practical questions it involves are at all events worth calling attention to whenever there is an opportunity.

THE president of the Royal Institute of British Architects, Mr. Barry, opened the sessions of the coming year with an address in which, with the practical straightforwardness which belongs to him, he spoke of some of the disadvantages under which the profession labors, and some of the scandals that everybody recognizes, though there is a disposition to shirk the public discussion of them. He made an earnest plea for professional unity and for honorable practice. He confessed that there seemed to be a lack of public confidence in architects, and reminded them that it lay with them to acquire it. He ascribed it chiefly to the prevalence of three common notions: first, that an architect thinks more of his design than of the practical uses of his building; second, that his estimates were not to be trusted; third, that he was ready to increase the cost of his building for the sake of magnifying his own commission. He urged architects to show by their example that the first of these faults does not characterize the work of the better class of practitioners; and that it "shall only be found in the works of mere builders, and pretenders to a professional position to which they have no title either by education or ability." The second he thinks due principally to the urgency of clients to get more than the sum they allow will pay for; and he enjoined architects to refuse to make designs for which they know that the sum allowed is inadequate. The third he takes to be only a half-confessed suspicion, which would disappear if it were boldly met and challenged. He spoke earnestly against professional jealousies, disingenuous criticism, underbidding for commissions; and appealed for the extension of the influence of the Institute by the professional attitude of its members, and by adding to their number, especially from among provincial architects, and even from those of the colonies and the United States.

THE manly thing in the president's address was the absence of complaints against the public, and the directness of the appeal to architects to set the troubles right by their own exertion. It is too much the habit of architects, on this side the Atlantic at least, to expend their effort in complaining that they are unjustly treated, and that they do not receive proper consideration. But consideration that is worth any thing is not to be had for the asking. Individuals get it by deserving and commanding it, and a profession must get it in the same way. It is idle to expect that a profession will be rated above its own valuation of itself; and when architects belittle themselves or each other, in the struggle for patronage, or submit to treatment which they secretly resent as indignity, it is their own fault if their standing suffers, and if the general esteem of the profession goes down with it. The *Architect*, speaking of Mr. Barry's address, says, "The profession, at least in London, and in its most ambitious walks, is constantly being, in plain language, snubbed; and the question is, How far is this justly due to the brethren snubbing each other"? A good deal, we should say, if things go in London as they go in the United States. The *Architect* adds, "It is when we get amongst the ragged fringe of such a profession as architecture, that unbrotherly conduct comes to be the rule; and for this simple reason — that amongst such men there is none of that cohesiveness which systematic education and the recognition of communal discipline alone can produce amongst those who otherwise are only placed in antagonism by rivalry in business." This is as true in the United States as in England; the trouble is that the fringe is only too apt to make itself more conspicuous than the web, as is the nature of fringes. It is safe to say that with us, the cities where the educated element is most prominent in the profession are those in which it is most united and brotherly, as well as most respected. Where jealousies and antagonisms prevail

is where the standard of professional attainment is lower, and the public respect for it less. These things are more than coincidences.

THE *Builder* mentions the establishment in London of what is called the Ladies' Tracing Office for Architectural and Engineering Plans. A few women, taking a hint from what had been a common practice in Glasgow and Manchester, had trained themselves to draughtsmanship under patronage of an active engineering firm, and, finding themselves successful, after some time opened an office on their own responsibility, where for the last few months they have been carrying on a general business with encouraging success. Here then, is the point where those who would like to make women architects may hope to introduce what is called the thin edge of the wedge, if the women are willing to face the risk of getting no farther. There is a great amount of tracing to be done in architects' offices; and architectural students are apt to be kept at it much longer than they like. It is a sort of clerical work that women may easily do, and one in which they may be protected from the rather disagreeable contact to which much of an architect's work would expose them. As for its being a work which will not tax their strength, and a lighter work than sewing, as is promised them, we are not so sure, at least unless they can insist on tracing none but small drawings. We have never done much sewing, but we have done our share of tracing, and we cannot forget being compelled by it into attitudes much more constrained and unwholesome than any we have ever seen assumed by sempstresses. But at least the work is neat, and unexciting enough not to tax greatly the nervous energies; and much of its laboriousness could no doubt be saved. To it might easily be added the lining-in of drawings, the laying-out of plans, elevations, and perspectives, and much work which is open to those who do not undertake to learn a profession, but who are in search, as women are apt to be, of a somewhat temporary employment. Here and there in our country a woman has done tracing for an architect or engineer, but it has not been recognized as a woman's avocation. Nevertheless we should think it decidedly better work for them than much that they find to do; and, if we had any women readers, we should be inclined to advise those of them who wished for some appropriate work, to try this.

THE remains of giants which Kentucky produces are in a fair way to be outdone by some new discoveries in Kansas, if we may trust the accounts of the local papers. On the bluffs north of Kansas City are some pre-historic mounds, which the archæological society of the city has but lately begun to examine. In the only one that has yet been opened were found two skeletons which must have been those of giants. The skulls, much decayed, seem to have been twice as large as those that are worn nowadays; the jaws indicate enormous strength of facial muscles; the thigh-bones are as large as those of a horse. The shape of the skulls is peculiarly flat; they are unlike those of existing Indians, and indicate a race of low development. The bodies were buried in a sitting posture; and with them were found a variety of stone implements, knives and scrapers of flint, etc.

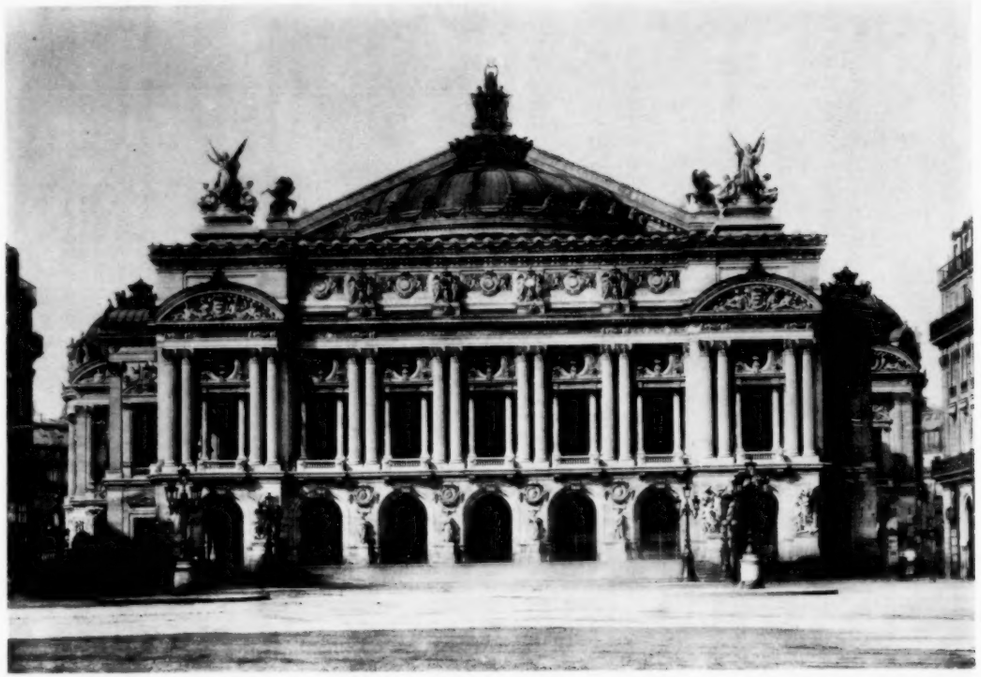
IN a late letter to the London *Times*, Dr. Schliemann gives some further account of the excavations which, with characteristic energy, he has undertaken at the Acropolis of Mycenæ since the oppressions of the Turkish governor drove him from his work at Troy. The Acropolis is a triangular promontory jutting out from a range of highlands into the valley below, and connected with the hills by a narrow tongue at the east end. It is surrounded by a circuit wall, mostly of "cyclopean" masonry, in which are three gates, the chief of them the famous Lions' Gate. Dr. Schliemann's first trench was close to this gate; but he was obliged to abandon it temporarily to allow some repairs to the wall by the Archæological Society of Athens. He then opened a second trench some little distance inside the wall, where he presently discovered an inner wall running nearly parellel with the outer one (above and within which the ground of the Acropolis rises considerably), and supporting a row of large inclined slabs of calcareous stone. This wall, which forms an arc of a circle of about one hundred and twenty degrees, and inclines inward with a batter of some fifteen degrees from the vertical, would seem to have been built simply as a retaining-wall to support the earth within it to the level of the adjoining higher ground, and to carry the inclined slabs, which appear to have been continued in a complete circle enclosing part of the adjacent land. Within the circle and not far from the wall he found two parallel rows of slabs, — tombstones evidently, — which had been set upright in straight lines, and from two to three feet apart. Seven of them are still standing, the four in the outer row covered with sculpture. Near these he found twelve tombs, each walled with four large slabs and covered with small ones; and not far off is a building of cyclopean masonry, unroofed, with walls upwards of three feet thick doubled upon two sides. The wall of the structure rises twenty-four feet from the earth-slope on the south side; and the single chamber it contains is seventeen feet by nine and a half. Dr. Schliemann considers this too to have been a tomb; and he asks who were the important personages so honorably buried in the Acropolis, where he expected to find the king's palace. He quotes Pausanias's account of the tombs of Agamemnon and his companions, who were killed by Ægisthus on their return from Troy. He has also been busy excavating one of the largest of the several domed buildings, treasuries as they are called, which are scattered outside of the Acropolis, on the slopes and in the ravines of the mountain. It appears to be substantially the same thing in size and construction as its famous neighbor, the so-called Treasury of Atreus.

M. GARNIER'S OPERA.[1]

PROFESSIONAL criticism is a valuable thing: it is a pity we get so little of it. Of amateur and *doctrinaire* criticism we have enough and to spare, so that we become rather weary of it. But the analysis of a man who knows by actual experience of work just how work is done is always interesting; and his conclusions are of value, whether or not they carry conviction with them. The serviceableness of artistic criticism depends on its divining with accuracy what are the aims of the artist who is criticised, the means by which he tries to compass those aims, and the good or ill success with which he employs them. When an artist consents to disclose the story of his own designs, — of which he knows the secrets as no one else can, and as he can know no others, — especially if he be a man of clear aims, and master of his means, he is the most interesting of critics. M. Garnier now contributes such criticism in his book on the New Opera-House at Paris.

The book is to be published at intervals in parts of which the first is before us, in the sumptuous style that might be expected. Each of the ten parts of the atlas is to contain ten folio plates, engraved with the superb care to which we are accustomed in French architectural engraving; some of them will be in colors, the rest on steel; and with each comes a *livraison* of the text, which will accumulate into two octavo volumes of four or five hundred pages. In the first number M. Garnier addresses himself to answering some of the criticisms that have been aimed at his building, especially in respect to the façade. He writes with the vivacious energy that characterizes his literary as much as his architectural work; and whoever has read the article in the

[1] *Le Nouvel Opera de Paris*, par Charles Garnier. Paris: Ducher et Cie. 1876.



Heliotype. JAMES R. OSGOOD & Co.

FAÇADE OF THE NEW OPERA HOUSE, PARIS.

AMERICAN ARCHITECT AND BUILDING NEWS, Dec. 2, 1876.

Michael Angelo number of the *Revue des Beaux-Arts*, in which he attacks Michael Angelo's fame as an architect, will see without surprise the naïve frankness, and what an English or American reader might call the conceit, with which he delivers himself. Yet if an artist is to speak of his own work it is most desirable that he should speak freely; and, conventional reticence apart, we do not see that M. Garnier says more for himself than any tolerably self-confident person who had been warmly interested in his own work would be likely to feel. The difference between him and other men is perhaps mainly, that he says what he thinks, where they would keep silence. At all events, whatever one thinks, as a matter of taste, of M. Garnier's attitude, the reader is at least the gainer by it. He speaks with equal frankness of the things which he considers failures, and of those which he thinks successful, and with equal assurance. To this the critical reader will not in fairness object, though he may not agree with M. Garnier's estimate of the ratio between the two.

M. Garnier takes up *seriatim* what he thinks the important criticisms that have been made against his façade; and it is perhaps not strange that in his first utterance after a long vilipending the sharpness of the polemic should be at least as noticeable as the analysis of the critic; nevertheless the analysis is there, and is worth attention. No one can deny that M. Garnier's building shows extreme cleverness. Its exterior is naturally developed from its plan; and, that being necessarily complicated in arrangement, the exterior is also necessarily somewhat so. Its massing is clever, its detail is varied, inventive, and shows a fancy full of vivacity. The general accusation to which it is open is that it is overdone. It is not merely the amount of detail that is put upon it, but the fact that everywhere this detail is obtrusive by its vivacity: bristling into perpetual aggressiveness, and large in scale even to heaviness, it has an irrepressible look that is fatal to repose. M. Garnier's procedure is logical, his points well taken, and his discussion instructive; but he leaves out of view the essential consideration that exactly the treatment he advocates and the motives he uses might have been adopted and carried out in a more restrained way, and with more refinement of effect. It is everywhere a question of degree. A theatre will certainly bear and invite a brilliancy and animation in treatment that would be out of place in a building for graver uses. The limit is one which can only be determined by a cultivated instinct; and all the argument in the world will not fix it. It is not an unmeaning pasquinade which represents the Opera as bristling all over with lyres and busts, horns and spikes, and which expresses itself in anxious cautions to "look out for the eagles," "look out for the lyres." But let us hear M. Garnier, who is more interesting than his critics.

He combats the charge of too much richness by saying that a theatre should look gayer than other buildings, — a prison, for example, "just as a woman at a ball should have a more engaging air than a Maritorna washing kettles." "If ever," he adds, "I should build a penitentiary, I assure you I would make a façade so dismal that it should be less sad to be in the building than to look at the outside of it. . . . What, gentlemen! you put on your black dress-coats, and wear your white cravats; you, ladies, appear at the opera with bare shoulders, diamonds on your necks, flowers on your heads, and silk about your persons; you quicken the brilliancy of your eyes, and the grace of your smiles, — in short, you are beautiful: and are you content to display your elegance, your charms, and your attire in a structure which is not on its part bedecked to receive you?" He adds somewhat naïvely, that if the screen-work in the intercolumniations of the principal story, and the sculpture of the basement, were omitted, his façade would be quite as plain as Perrault's famous colonnade in the Louvre, — except for the attic, which is altogether wanting in the Louvre.

What Mr. Garnier has to say about the difficulties he met with in his treatment of his façade is so characteristic of the troubles that beset an architect, and so good an account of his way of meeting them, that we shall give it at some length. He defends the low proportion of his basement, which has been attacked, saying that he wished to add as much importance as possible to his principal story, and not to give the subscribers any more steps to climb than the sixty-three that they had been used to at the old Opera. Of the treatment of his portico, or loggia, he says, "I was not willing that this great portico, which overpowers the eye by its height, should stand gaping and unoccupied; I wanted to contrive some sort of hangings or curtains in the intercolumniations which should in the first place shelter the loggia from wind and rain, and especially should make the building look inhabited. It is this closure, this perforated screen, which gives movement and life to the structure." He has before argued with much spirit in favor of the use of color in exteriors, which seems to have given a great shock to his critics, but for which he makes a good defence, roundly abusing the monotony of Paris, where, he says, "The streets are cold, the houses sad and regular, and a solitary spot of color breaks out with the effect of the sound of a trumpet in a sick-room;" and he winds up by saying stoutly, "If I ever have occasion to build another great theatre you shall see that I am a hardened offender."

The attic, he confesses, is too high. This he considers the great fault of the façade; and he accounts for it thus in a way that will appeal to the sympathetic experiences of many a brother: —

"In the first design the monument was crowned by a simple balustrade which, not overpowering the principal story, left it all its importance; then a terrace covered the loggia, running back to the wall of the *foyer*. Thus composed, the façade was lighter, kept together better, and was terminated by the two curved pediments which were relieved against the wall behind. Its crowning feature was not without elegance. But, while the foundations were building, the houses on the Place de l'Opera and the Rue Auber were run up rapidly to a height then unusual. I had not expected them to exceed the authorized height of seventeen and a half metres: they reached twenty-three, I believe. My poor Opera, already on land which fell off from the Boulevart, and set back behind the line of the houses on the corners, was sure, beside these great buildings, to lose in grandeur if not in scale. It was no longer the theatre but the Grand Hotel that would be the monument. Then it was that I cursed the prefect and the capitalists who, with no mercy for the Opera, shut it up as it were in a great box. Moreover, since the minister of state controlled the theatre, and the city controlled the great buildings, there was no chance of any agreement between the two authorities. What could be done? I resolved to bring forward the wall of the *foyer* to the line of the colonnade, and to crown the façade with an attic; in this way at least the mass of the monument would be higher, and could hold its own better against its gigantic neighbors. But to gain as much height as possible I forced that of the attic rather too much. I can only regret what is done: it is too late to change. Nevertheless I have noticed the fault from the beginning, and tried to correct it, though without changing the actual height. I had attained this result, incomplete certainly, but still satisfactory, by an optical artifice. I had divided the attic by a great horizontal band of marble, which, counting in with the upper member of the great order, seemed to raise the order, and diminish correspondingly the height of the attic. When the façade was uncovered, the marble, pretty strong in 'value,' fulfilled its office sufficiently. But the marble was ill chosen: it was Sarrancolin, which does not bear exposure, and quickly loses its color. So the stone has darkened, and the marble faded, till they are hardly to be distinguished from each other; and the attic has regained to the eye its primitive dimensions. This fault can be corrected; and if I have the means some day I shall replace the band of Sarrancolin by the red stone from Sampan, which preserves almost all its depth of color. Then perhaps the device which I have invented will be sufficient, for most persons, to disguise somewhat the too great height of the attic."

The unlucky attic, however, gave him yet more trouble. His first idea was to decorate it with a continuous frieze upon a gold ground. But in an evil hour he discussed this proceeding with some friends, and yielded to their advice to break the attic over the columns. By setting groups of sculpture over each pair of columns he hoped to carry up

the lines of the order and still further subordinate his attic. Unhappily the sculpture, too much cut up into detail and not strongly relieved, allied itself to the attic instead of the order, aggravated its insubordination, and made things worse.

We have given among our illustrations a view of the façade of the Opera, which will make our account of M. Garnier's sayings clearer. We will not here add our criticisms to his; but we may be tempted to return again to his story.[1]

SIR JOHN HAWKSHAW'S REPORT ON THE PURIFICATION OF THE CLYDE.

THE grossly foul condition of the River Clyde below Glasgow has long been the subject of serious consideration on the part of the authorities of that city; and it has had much attention from the Rivers Pollution Commission of the Government.

In December, 1874, the well-known engineer Sir John Hawkshaw was appointed a commissioner for the purpose of inquiring into the best means for purifying the river, and for remedying the evils arising from its polluted state.

His report, recently published as a Parliamentary Blue Book, contains a full description of the existing conditions, and a consideration of the previous projects for improvement; also a recommendation as to the course to be pursued for relief. It is accompanied with maps illustrating the actual condition and the works proposed; and is followed by a report of the Minutes of Evidence taken by the Commissioner during several long sessions.

For the general reader these Minutes of Evidence constitute the chief value of the publication, as being an epitome of the judgments, theories, and opinions of all manner of persons, who, whether qualified or not by their previous experience, have devised or imagined means of relief. It gives, in short, a tolerable clear *résumé* of the present condition of knowledge and theory upon the whole sewerage question, whether in the details of water-closets, earth-closets, pail-closets, pneumatic systems, *poudrette* systems, land-carriage or water-carriage, including the various items of land-irrigation, gravel-filtration, deposition by the use of chemicals, and nearly every thing relating to the accumulation and removal of town wastes, and to the influences of those wastes and the gases arising from them, and of the solutions filtering from them, upon the health of the household or the town.

It may well be doubted whether there is collected together within the same space elsewhere in the language, any thing like so full a statement of the whole case as is here presented in the words of those who have advocated the different systems discussed.

Incidentally there appear items of much general interest. For example, the following has a bearing upon the often-expressed opinion that the chief value of town sewage comes from its content of water-closet matter. It was shown by analysis that the waste of a single distillery in Glasgow (each of the 83,000 gallons discharged daily containing 118 grains of ammonia) discharged into the Clyde an amount of filth equal to the total excreta of 48,970 persons per day. The history of this distillery illustrates a prevalent opinion that manufacturers should be required to take care of their own waste; for, upon the matter being agitated, the proprietors stopped discharging their polluted waste into the sewers, devising means for purifying it, and are now realizing from *one thousand pounds to two thousand pounds* a year from its preservation.

In the examination of Dr. Andrew Fergus, president of the Faculty of Physicians and Surgeons in Glasgow, he read a quotation from Dr. Littlejohn, the medical officer of health for Edinburgh: "If they took a range of houses where this had been done (that is, where water-closets had been introduced), in the course of one year there were double the number of deaths from typhoid and scarlet fever; and any epidemic fever occurring in these houses was intensified, and assumed a character of malignant mortality." Other evidence adduced by Dr. Fergus indicated that what are known as the diarrhœal group of diseases are on the increase, and that they can always be traced to one of two distinct causes, — the taking into our system, by air or by water, organic matter in a state of decomposition, and most frequently human excrement. Dr. Fergus is very strong as to the importance of ventilating sewer and house drains. It would be impossible, within the limit of a single review, to give any thing like an epitome of these Minutes of Evidence. They tend very strongly to enforce the deductions before indicated.

An engineer studying Sir John's own report with a view of acquiring valuable information will be only moderately rewarded.

In general terms, he recommends a large sewer to be run from a pumping-station below the city to a distant point on the coast of Ayrshire; this sewer to take practically all of the foul water not only from the city of Glasgow, but from the very large and populous manufacturing and mining regions along the tributaries of the river. The general considerations by which his advice was influenced, and the degree to which different chemical and mechanical systems for treating large amounts of sewage entered into his calculations, are made clear, and are instructive; but when we come to the question of intercepting outfall-sewers, and to the details of their construction and cost, we are left quite in the dark. There is more than one such truism as this: "Outfall-sewers to any of those places will be a work of magnitude and considerable cost, and when constructed should be calculated to endure."

The outfall-sewer recommended to be built from Whiteinch to Farland Head is to be thirteen feet in diameter and twenty-seven miles long. For a continuous eighteen miles of its course it is nowhere less than seventy feet below the present surface of the ground, rarely less than two hundred feet; and under the summits of five hills it is from 270 to 470 feet below the surface.

In presenting such a scheme, an engineer of the reputation of this commissioner would, it seems to us, have better fulfilled public expectation by omitting if necessary minor details of his report, making up for the loss of matter by information as to the manner in which he proposed to drive this tunnel, which is more than twice as long as that through Mont Cenis.

It would have been interesting also to have had published some of the details which go to make up his estimate of the cost of the work, which amounts, for intercepting sewers, pumping-stations, interest during construction, and contingencies, to £2,500,000. Concerning outfall-sewers, we have literally nothing more than the following table. Nor do the report itself and the accompanying sectional drawing give further information on this point than we have indicated above. For an estimate, we have only this: —

The outfall sewer	£1,200,000
Contingencies 15 per cent	180,000
	1,380,000
Interest on money during construction	120,000
Cost of outfall-sewer, including land	£1,500,000

[1] If it were not that we felt the need of accompanying our article by an illustration of the Opera-House as executed, the fear that the accompanying heliotype — greatly reduced from a photograph — might be taken as a criterion of the capability of the heliotype process would have deterred us from publishing an illustration so little satisfactory to the heliographer.

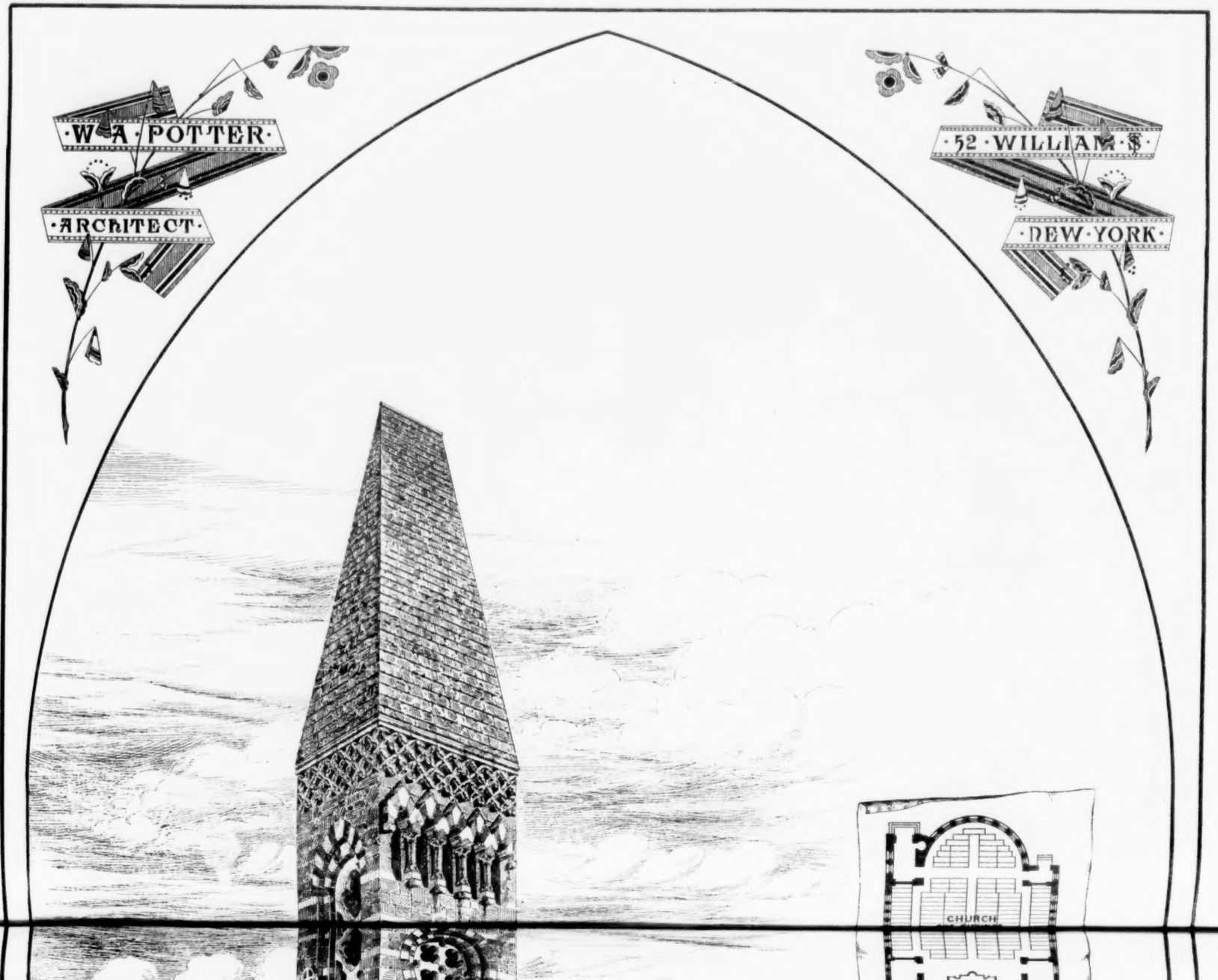
THE ILLUSTRATIONS.

NEW SOUTH CONGREGATIONAL CHURCH, SPRINGFIELD, MASS. MR. WILLIAM A. POTTER, ARCHITECT. (52 William Street, New York.)

THIS church was commenced in the spring of 1873, and completed in the winter of 1875. It is built of Longmeadow red sandstone, with strings, sills, caps, and other wrought work of Amherst Ohio-stone. The building comprises a church with eight hundred and fifty sittings, a chapel and lecture-room seating respectively four hundred and fifty and two hundred and fifty people, together with Bible-class and choir rooms; ladies' parlor and kitchen are in the basement. The windows in the church and chapel are filled with excellent stained glass, in most cases gifts and memorials. The arch at the rear of the pulpit is filled with an elaborate screen of butternut, with richly carved caps, bases, and mouldings, above which the organ is placed. The latter is carried out beyond the piers of the arch on bold corbels, and fills the upper part of the arch. The pipes are so arranged as to form an elaborate composition, and the whole richly colored. The pulpit and platform front are of butternut with marble panels introduced, and are ornamented with carved subjects, symbols, foliage, etc. The walls and ceiling are decorated; and the finish of the church, the pews and other furniture, of polished butternut. The acoustic properties of both the church and chapel are found to be admirable. The whole cost of the church, including organ, decoration, and fixtures, was about one hundred and twelve thousand dollars.

A COMPETITIVE DESIGN FOR THE BROOKLYN MUNICIPAL BUILDING. MESSRS. CORNWALL AND MAYNWICKE, ARCHITECTS.

SUB-STATION 14TH POLICE DISTRICT OLNEY PHILADELPHIA DAVIS EDMUND SUPPLEE ARCHITECT PHIL.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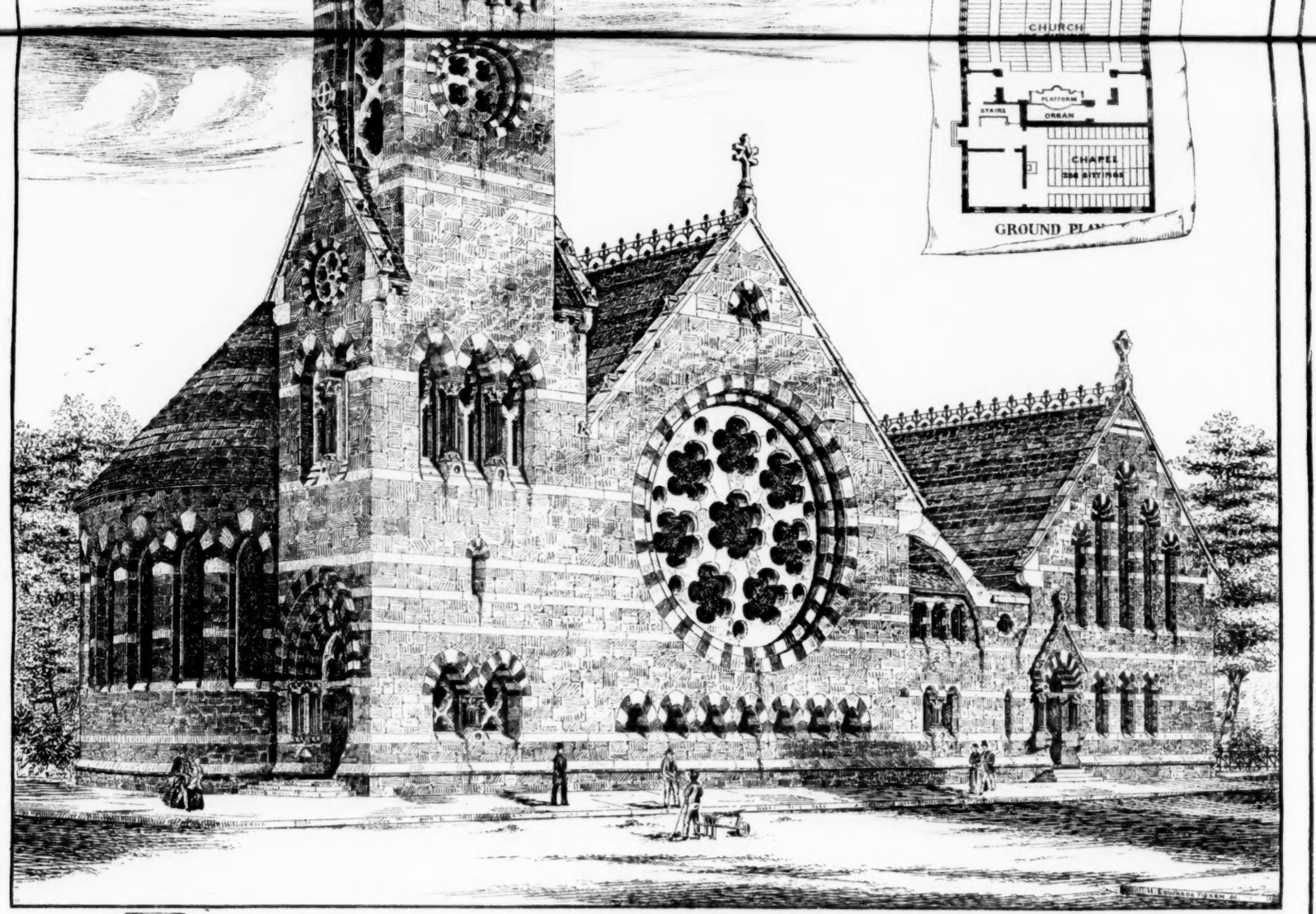
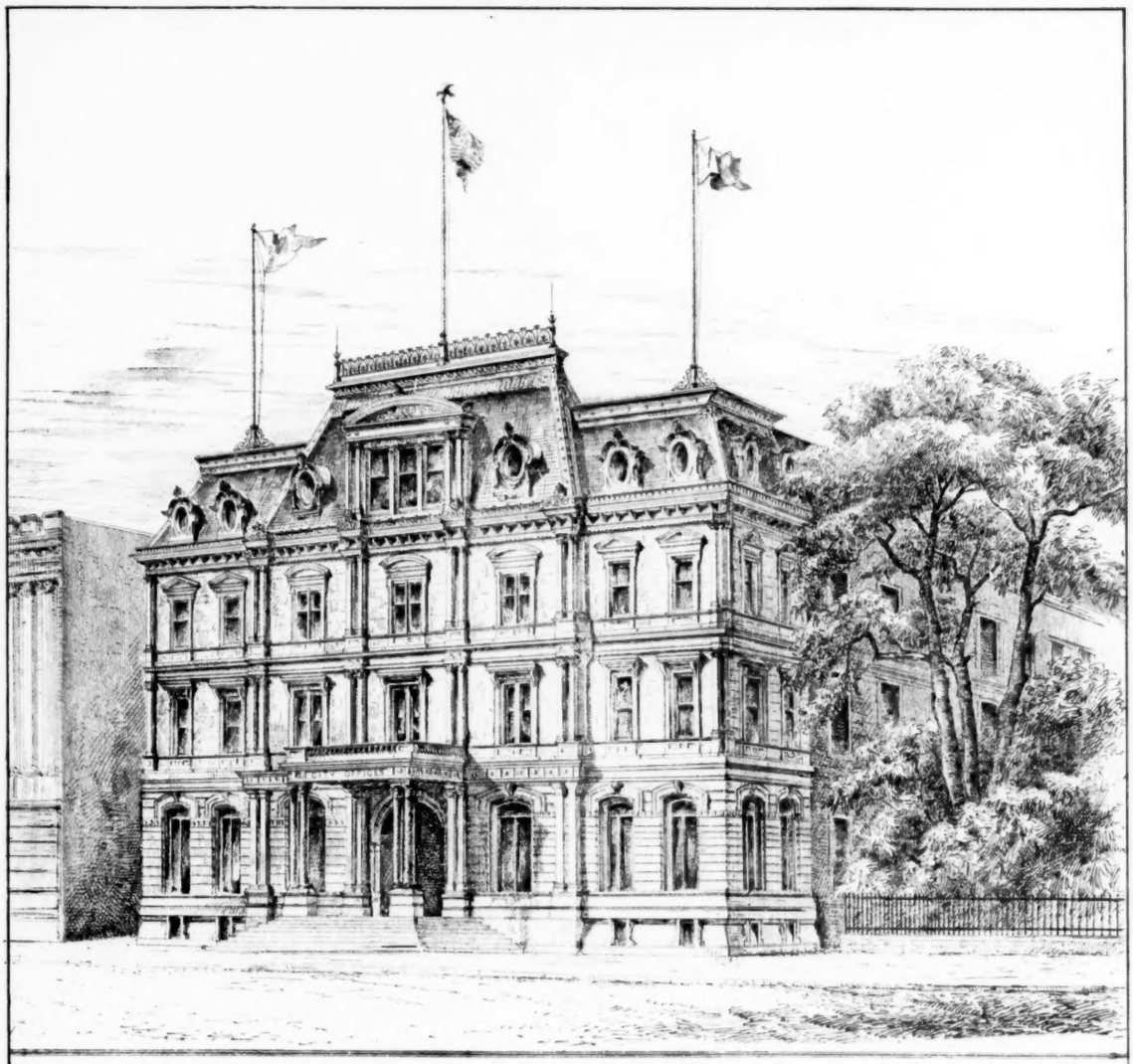
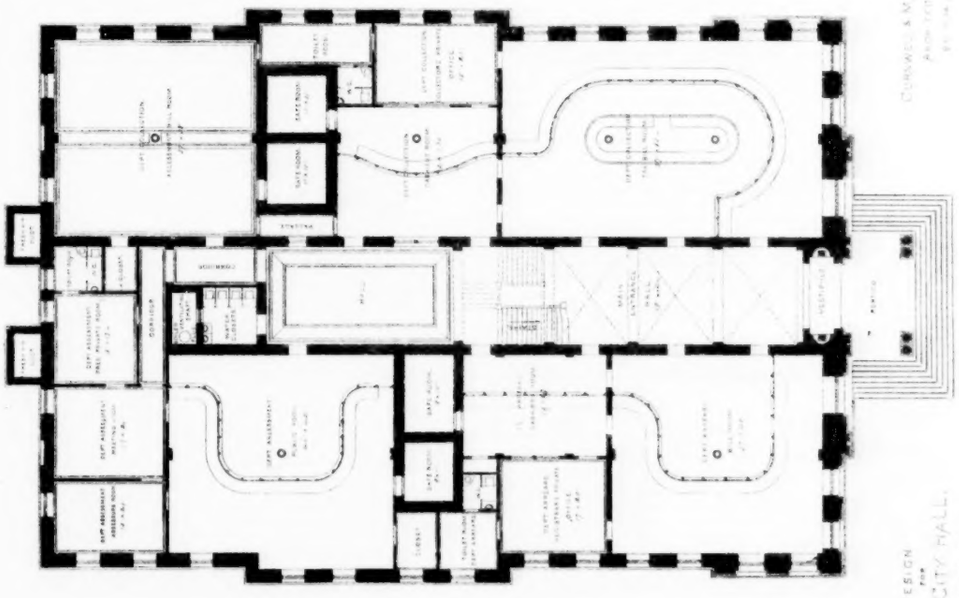
CHURCH



· NEW SOUTH CHURCH · SPRINGFIELD : MASS ·





DESIGN FOR NEW CITY HALL, BROOKLYN, N.Y. FIRST STORY PLAN. CUMMINGS & MCKIM, ARCHITECTS.

AMER. N. ORR&CO. & CO. BOSTON

SUB-STATION FOR THE FOURTEENTH POLICE DISTRICT, PHILADELPHIA, PENN. MR. DAVIS EDMUND SUPPLEE, ARCHITECT.
(208 South Fourth Street, Philadelphia.)

Several new police station houses are now being erected for the city of Philadelphia by Mr. Supplee, one of which is here illustrated. The idea of keeping the rear part, used as a prison, separated by an area from the main building where are the officers' rooms, dormitories, etc., is followed in all. The inside lining of the prison walls, the cell divisions, and the floor and ceiling, are all made of large slabs of flagstone. The fronts of cells are of wrought iron bars. The second story of the prison building is for the exclusive use of tramps and lodgers who seek accommodation for the night, and is lined with hard brick, and lighted by skylights. The main building is finished throughout in chestnut, and contains wardrobes, coal-closets, and all the conveniences of an ordinary dwelling-house. The sub-station at Olney is thirty by seventy feet, built with stone from the immediate neighborhood, finished in chestnut inside, and cost complete twelve thousand dollars.

DECORATIVE FINE-ART WORK AT PHILADELPHIA.

ENGLISH FURNITURE.

THERE is no name among those of art manufacturers more familiar to the American architect than that of Cox & Sons. It is natural that we should expect from this firm a characteristic display of their art work in all the departments to which they have given attention. Their exhibition, though not as large as it should have been to fairly represent the excellence of their work, was creditable, and perhaps as full as circumstances would permit. It was evident that the English manufacturers who have given their attention to the reproduction of mediæval work have come forth on this occasion with a degree of reserve that might have been expected, not feeling certain as to the amount of appreciation that their work would receive. This is natural in view of the scanty information heretofore attainable as to the progress of decorative art in this country, due mainly to the want of an architectural periodical of high character. We are informed that the results of the venture, in a financial point of view, have not been encouraging. But our English neighbors should not on that account underrate our appreciation of their work. This has been an unfortunate year for selling goods which are not of utilitarian value alone. It should also be borne in mind that the high American duties carry the price of such articles of manufacture to a point entirely disproportionate to the relative values of English and American work in the same line. The fact that Cox & Sons sold only their small articles is due to the fact that we were able only to buy samples of their goods which were within our means. If these houses with their vast experience and skilful workmen would only open branch establishments here, they would find that they could make and dispose of goods of equal excellence at a far lower price than that at which they offer foreign-made goods. It is not to be denied that American manufactures in all the lines represented by Cox & Sons have recently experienced a vast improvement; and, though the English goods may be superior in every respect, they are not so much so as to command twice the price of our goods.

The house of Cox & Sons has been identified with the Gothic revival ever since Pugin gave it such an impetus. From the manufacture of metal goods alone, it has grown to comprehend the making of stained glass, the working of stone, granite, and wood for every purpose to which those materials are applicable, and has recently added to its already varied aggregation of processes the casting of artistic bronzes. Besides these it controls private patterns of tiles, carpets, curtain and upholstery goods, and wall-papers. From the performance of ecclesiastical work only, it has gradually extended its operations to every branch of house decoration and furnishing. Instead of burying its designers under the name of the firm as has been done by some others, it has given liberal employment to the best architects of England, and invariably has given them full credit for their work, as its catalogues will testify. The larger part of its work has been the carrying out of contracts from special designs, under the direction of architects. The articles thus produced do not appear on their catalogues or price-lists without permission. Thus the principle of reciprocity with the architectural profession has been securely established and maintained.

The articles in their exhibit made mostly of wood were mainly for domestic use while those in metal were for church purposes. The illustrated circular of the firm containing drawings of most of the articles contributed to the Philadelphia Exhibition has been so extensively circulated that description of special articles seems almost superfluous. The great chimney-piece which attracted so much attention was a remarkable and harmonious blending of a great number of materials, and withal a hazardous undertaking. The general effect was far beyond any thing that could be anticipated from the illustration. Designed in the style of English Gothic of the fourteenth century, it faithfully reflected the spirit of that style, and, being enriched by many processes not in use in that period, displayed an affluence of resources not to be found in any old examples. Whatever unfavorable criticism may be levelled against it is due to the inherent defects of a style which portrays the first signs of decadence in mediæval Gothic. The masterly handling of the whole rather leads us to overlook such things; and we are irresistibly charmed by the truly mediæval spirit which envelops the whole composition. This is the design of Mr. S. J. Nicholl, architect, to whom may be credited most of the other furniture work in Cox & Sons' exhibit. The panel paintings are by C. Rossiter, whose handiwork was also seen on many loose panels of wood and leather offered for sale separately.

The other articles of furniture were generally in the fourteenth-century style, which may be attributed to the influence of Mr. Nicholl, we presume. The writing-desk and cabinet showed the influence of the Jacobean movement. There is none of the heaviness so often attributed to Gothic furniture in any of these pieces, — to which charge the designs of Talbert and Eastlake may be open. It was all of English oak, not filled; and finished with oil only. Too much praise cannot be bestowed on the perfection of workmanship, wherein rests the principal item of expense in Gothic furniture. It is needless to add that the hinges were real hinges, and that the metal trimmings used were examples of the highest perfection yet attained in the metal-worker's art. The decoration of a drawer-front with sheet-brass *repoussé* work was one of the triumphs of the Exhibition, and made us sigh for the good time when this art will be established among us. One lesson taught by this exhibit is that what we waste on finish, the English put into perfection of workmanship and honest construction. The remark applies especially to our attempts to make Gothic furniture, or rather furniture in the Gothic spirit, which, though often well designed, generally fails through the incompetence or rascality of the makers, and the indifference, or perhaps the despair, of superintending architects.

Cox & Sons stood alone among English exhibitors, as exponents of Gothic art. The only approach to it was in the chimney-piece of Howard & Sons; but they, with nearly all the others, have taken up the style which we are bound to admit is becoming the fashionable one of the day; and is welcome because it is such a great advance upon all others that have prevailed in this century. But it is one which draws largely from the Gothic school for constructive processes, and therefore is honest. Its worst tendency is, however, to luxuriousness; and it comports too much with upholstery, against which the Gothic revival was partly directed. We missed from the Exhibition all examples of the style of Talbert, as shown in his "Gothic Forms," which has become so popular among the architects of Gothic tendencies in America. The designs of the Society of Decorative Artists, now belonging to Cox & Sons, were also without representatives. The Gothic school, therefore, was in the minority. Nothing could have been more desired than a few examples from Morris & Co., and one, at least, in the archaic manner of W. Burges; if for nothing else, to counteract the tendencies of the Jacobean restorers.

We had heard much, before visiting the Exhibition, of the carved oak chest by Henry Hems of Exeter, England, said to have been made entirely from an oak beam taken from the choir of Salisbury Cathedral, and were fearful that it might prove to be like many other curiosities similarly heralded. Great was our pleasure on finding that, aside from the interest attaching to its material, — which is of very little moment except as a demonstration of the preservation of timber, — it was a really valuable work of art. It was unjust to Mr. Hems, to give Cox & Sons the credit of being the only English exponents of mediæval furniture. The impression produced by it was, that we might be in the presence of one of those genuine fourteenth-century chests of which Viollet-le-Duc gives such admirable illustrations in his Dictionary of Furniture. It was thoroughly mediæval in every detail. The carving was full of spirit such as might readily be aroused in one working on such precious material. Instead of having panels carved in the manner of all the periods of English Gothic, as has been said by a contemporary, the panels were all

treated in one manner, but varied in design. The hingework was an admirable specimen of mediæval wrought iron, and the construction throughout in perfect harmony with the spirit of fourteenth-century woodwork, before it had lost the distinctive qualities of thirteenth-century work.

CORRESPONDENCE.

GIFTS TO THE CITY.— THE TIMES' BUILDING. — THE Y. M. C. A. BUILDING. — THE CHIMES OF ST. MARK'S. — OBITUARY.

PHILADELPHIA.

WHILE the possibility has been anticipated with some dread, that the various State buildings at the Centennial Exhibition might be presented to the city or the park, there is very much of satisfaction felt at the presentation to the city of the houses of the Japanese and English commissions, as being really picturesque objects and valuable ornaments to the grounds. And now the Japanese merchants have presented their bazaar also. This is, by all odds, the most picturesque of the lot. These Japanese buildings are probably the most representative in style and construction of any of the minor works in the enclosure. The style of the English buildings must in a great measure be regarded as a revival or reproduction of old forms, rather than as representative modern work showing us the *results* of the revival of art feeling in that country. The house of the Japanese commission strikes one as having been rather unfortunately located in a portion of the grounds where there are very few surrounding natural features of sufficient importance to serve as a setting for it; whereas, on the other hand, the bazaar and its surroundings work together admirably. A low one-story building encloses three sides of a parallelogram, having in the centre a crude sort of fountain surrounded by plants and rock-work, the whole amply shaded by two or three large low-spreading catalpa trees which harmonize so well with the buildings, fencing, and gardening, as to give one the impression of having, like all the rest, been imported especially to complete the general make-up. This group is indeed a remarkable instance demonstrating the value of surrounding objects in, so to speak, re-enforcing architectural effect.

After the massive and peculiar building erected a few years since for the Guarantee Safe Deposit Company (noticed in a late number of this journal), the most striking departure on Chestnut Street from the old architectural lines of Philadelphia is the new *Times*' Building, at the corner of Eighth Street. It is of red brick, with bands of black and details of Ohio sandstone. The corner tower, with clock stage and pyramidal roof somewhat suggestive of that of the *Tribune* in New York, appears rather to grow out of the building than to separate itself from it with any individuality in the lower stages. As a whole the building has a bright and cheerful effect of color, but is very much lacking in solidity of appearance; for, like too many of the buildings on the principal thoroughfares of all the cities of this country, too much of the wall-surface of the first story is devoted to show-windows; and here — there being besides the office two stores on the Chestnut-street front, and two more on the Eighth-street front — we have such a large expanse of plate-glass that at a little distance the superstructure reminds one not a little of the miraculous condition of Mahomet's coffin.

It seems a most unfortunate circumstance that those who build store-fronts almost invariably demand the utmost amount of space to be thrown into the show-windows, as if to vie with each other in an exhibition of plate glass, and really seeming to begrudge the smallest portion of the frontage to the necessary piers for the support of the superstructure: yet these same areas are seldom crowded with goods. Where displays of this sort are absolutely necessary, and the desire is to urgently attract the attention of the passer-by towards them, there seems to be something far more reasonable in a modification of the old-fashioned bulk window, which shows for itself as being of a superficial construction, and attached to, rather than incorporated with, the actual building. In contrast with this is the management of the shop-windows in the fine large building of the Young Men's Christian Association, at the corner of Fifteenth and Chestnut Streets, where there is a polished Aberdeen granite column of a foot in diameter, backed by a substantial stone pier, occurring between each pair of doors and windows. This arrangement throws the latter back rather than forward, and so may be considered by many a disadvantage from a mercantile rather than an artistic point of view.

It is now anticipated, that instead of opening certain streets directly through the walled enclosure containing Girard College and its adjacent buildings, the walls will simply be set back at certain angles, to allow of laying an easier curve for the passenger railway cars, and so somewhat relieve the travel both for them and ordinary vehicles, which has greatly increased of late because of the re-opening of the Girard-avenue bridge. The amount of ground encroached upon, however, by this change will in no way interfere with the college buildings, and will hardly be missed in the size of the enclosure.

That bells, and more especially chimes, are not essential adjuncts of a church and are, in fact, nuisances, a number of citizens in the aristocratic neighborhood of St. Mark's Church, backed by several fashionable physicians, have been taking great pains to demonstrate. Few of the churches in the western portion of the city have bells; and the only three in the city which have chimes are left to play them generally to the edification of neighborhoods occupied by warehouses and shops, which, when the chimes are sounded, are mostly closed. The church in question is a Gothic structure of New Jersey brown stone, of very good style and detail, rather imitative than original, designed by Notman, and built some twenty-five years since. The disturbance of the nervous neighborhood by a set of bells only procured within a few months past, especially by the call to an early service on Sunday morning, seems to be the principal cause of its protest; and the subject, novel and funny as may be some of its phases, bids fair to be pretty thoroughly discussed; and it is not unlikely that it may finally get into the courts.

Although it is not of especial architectural importance, it may not be uninteresting to mention a rather remarkable book sale which is announced to take place in this city this week. The collection comprises the whole of Washington's library, most of the volumes bearing his autograph and book-plate. Some early maps of Virginia and the Carolinas published in London in 1775, and another of "the most inhabited part" of New England published in the same year, as also Jeffrey's "General Topography of North America and the West Indies," London, 1768, will no doubt be of sufficient historical interest, besides their peculiar personal associations, to command for them very high prices.

The "reception given by citizens of Philadelphia to the United States Centennial Commission, the Centennial Board of Finance, and others connected with the Exhibition," at the Academy of Fine Arts, was one of the most brilliant outpourings of appreciative feeling, and acknowledgment of what gratitude was due and felt towards the gentlemen who compose those bodies, that could have been desired. The adaptability of the building for a purpose of this character, and the excellent manner in which it lights up, challenge one to deal gently with the sense of unrest which is found in the exterior.

The announcement of the death of Mr. William Struthers, which occurred Nov. 20, will be received with regret quite as largely throughout the country as in this city. Mr. Struthers succeeded his father, Mr. John Struthers, as one of the principal marble-workers of Philadelphia, and, like him, was widely esteemed and respected. The most important work he had on hand of late was the contract for supplying the cut marble, including all the decorative detail, for the new Public Buildings.

ON THE CONSTRUCTIVE USE OF WOOD.

BY P. B. WIGHT.

THE use of wood for constructive purposes dates back to prehistoric times. It was employed for the most primitive structures, when the only art of building known consisted of the tying together of branches of trees, and covering them with brush. Then wood was actually used in its growing state, and the idea of "manufacturing" lumber was unknown. When men began to build of more permanent materials, wood continued in use for the roofs and inside work where protected from the weather; and this practice has continued through all ages, and among all the races of mankind. The remarkable properties of wood in its resistance to compression, together with its toughness, and the ease with which it is worked, are such as to have adapted it to more varied uses than any other material known to man. In addition to these properties, the variation in the color and grain of its various species, and their capacity for taking the most perfect polish, have given it qualities for artistic use scarcely equalled by those of the fine marbles and stones.

While treating of the constructive uses of wood, we do not refer to its use for constructive purposes. This is a subject of extensive range, and not pertinent to the object of this work. We

refer to its use in best accordance with its own structural character, especially with reference to its employment in the finishing of churches and buildings generally, and its adaptation to the construction of furniture. We say the *construction* of furniture, rather than the manufacture of it, because we maintain that the construction is of more importance than any other process in its manufacture. Lightness combined with strength is the essential quality of all *movable* furniture; while the constructive use of wood, with a view to developing the best properties of the material in the simplest manner, is no less essential in those articles which are more permanent in their nature.

The study of architecture, as practised in all ages known to us, reveals the whole history of the use of wood, or, at any rate, all that is known of it. Our space will not permit an historical review of the subject; and it is only pertinent to refer to those nations which have used it in accordance with its peculiar properties. We know, from paintings, that the Egyptians used straight wood in their furniture. The Greeks and Romans, as shown on their medals, used straight-grained, well-constructed furniture. The Chinese, in ancient and modern times, have been famous for their admirable woodwork, in which they have combined lightness and strength to a remarkable degree. The earliest actual remains of any extensive use of wood for interior work are found in the buildings of the middle ages, from the twelfth to the fifteenth century; and it is in this period that we find the highest development of the art of wood-working, and its most extensive use. For two centuries later, and in some localities down to the end of the eighteenth, wood continued to be used constructively, especially for furniture-making; and much of the work of this latter period, which has been preserved, is now highly prized by connoisseurs, and eagerly sought for by museums of art. To the preservation of these, and the recent extensive study of mediæval art, may be ascribed the recent revival in furniture-making. The French artists of the Renaissance, however, did every thing that was possible to debase the use of wood, and make it subservient to whim and caprice, making it in many cases only the skeleton to be arrayed in ornament executed in a baser material, overloaded with paint, gilding, and inappropriate adornments of metal, shells, and even stone. They distorted straight-grained wood, and gave it all sorts of twists and curves, which made it resemble bent wood. In doing this, they had to resort to tricks and ingenious devices to make it stand ordinary wear. Even when foreign materials were not employed for ornament, they overloaded the wood with carved ornaments, with total indifference to the use to which it was to be put. From the French Revolution down to the present time, these styles have had their followers, and cheap imitations of French furniture have been the staple of most furniture factories and dealers. The revival which has set in during the past twenty years, especially in England and America, is one founded on common-sense. It recognizes the distinctive properties of wood, — that its grain runs one way, and that in that direction is its line of strength; that it is liable to shrink greatly, if used in wide pieces, notwithstanding the efforts that are made to prevent this natural occurrence; that it may check or warp, unless cut from the tree in a particular direction; and, mainly, that it should only be joined together by the mechanical methods of securing wood to wood without other artificial adjuncts, or, in other words, that the mortise and tenon are the main reliance in joining two pieces, and that glue is at most but subsidiary. It is the observance of these principles which is the distinctive feature in constructive woodwork. The work which purports to be of the revival is not all faithful work ; and it is important that the distinctive features of good work should be known to the general public, so that they can judge between the good and the bad. The revival has its true and its false prophets. The latter, unable to understand its meaning, and indifferent to the inculcation of true principles of art applied to mechanical work, consider it to be a *fashionable* style, and push it along as such. But it is only a fashion in so far as they can put such work on the market with imitation tenon and wedge work, panels which are not framed, glue-joints for mortise-and-tenon joints, and the like. A revival such as that now in progress, urged on by the body of intelligent architects, and put in practical operation by a few conscientious manufacturers, is not for a day, but is permanent. It is a style always capable of higher development; and it is these improvements, in place of shifting fashions as of old, that will redound to the benefit of any faithful manufacturer no less than the advancement of art, because it is founded on the constructive use of wood, and its adornment in accordance with its capability to display genuine artistic work.

From the use of growing trees, to the manufacture of modern woodwork, there is a wide range between the degrees of excellence in workmanship, growing out of the vast improvements in processes, and especially in the preparation of materials. The woodwork of the middle ages was without fault; but it was the result of an amount of actual labor from which we would now recoil. The lumber was well seasoned, but it was seasoned by time alone. Moreover it was all hand-work. The ingenuity of man in modern times has devised methods for curing and preparing the material in much less time than was formerly employed; and, though the old methods should not be set at nought, the new methods have this advantage, that they economize the amount of capital required in carrying on work on an extensive scale to meet the enormous and rapid demands upon our time. Now, also, in the sawing, dressing, moulding, mortising, and sand-papering of lumber, machinery does all the work. The lathe was almost the only machine used by the ancients: now improved machinery enables us to do the most elaborate lathe-work at comparatively small cost. As long as machine-work does not invade the realm of the carver, the artistic value of machine-made woodwork is not deteriorated, and its cost is greatly reduced. There are really only two machines in general use which are at war with art, and those are the scroll-saw and the shaper, both of which have led to great abuses in design ; but they are but little used in the finer sorts of work.

The main stay of constructive woodwork is the mortise and tenon. A piece of woodwork which can be put together without glue, nails, or screws, and serves its purpose, is an ideal work of construction; but this is not always possible. Another principle of construction is, that every piece of wood should be so placed that it can swell or shrink without injuring itself, or displacing any other piece. This is maintained in an ordinary panelled door, provided no mouldings are inserted. Still another principle is, that mitre-joints should be avoided, whether for moulded work or not, for the reason that shrinkage causes all mitres to open. No piece of wood should be used unless the straight grain of the wood can be seen through its full length in one place. Inserted mouldings should be avoided as far as possible; and all mouldings for panel-work should be worked on the styles and rails. It is a general principle, observed in the best mediæval joinery, that all mouldings on rails which are horizontal should butt against the styles; and that styles should be either plain, or should have mouldings stopped before reaching the joints with the rails. In practice all rail mouldings may be worked the whole length of the stuff used; and, if muntins (which are the middle styles) are used, the moulding may be cut away to the square wood before the mortise is cut which is to receive the tenon of the muntin. Thus the mouldings will butt against the square sides of the muntin. All the parts for a door thus made can now be got out by machinery, and the door will be fully constructive in every sense of the word. There is no obstacle to this in the way of cost. The dovetail is a constructive device; and the dowel is admissible in places as a substitute for the mortise and tenon. Tongue-and-grooving is a legitimate device, both for ends and sides of boards. Bevelling the edges of the pieces thus joined is better than beading. The best way to construct large panels is to make them of narrow strips, tongue-and-grooved, and bevelled at the joining edges. Such panels will never "draw." The shrinkage will be divided between all the joints. Solid table-tops should never be fastened with glue or screws, but should be secured with buttons fastened to the under side of the top, which travel in grooves cut in the framework to allow for expansion and shrinkage. These are but few of the principles to be observed in doing the best woodwork.

In all kinds of lumber, the heart should be rejected. All boards cut on a radius from the centre to the periphery of a tree will remain true, while all others have a tendency to warp or check. The first are called "quarter-sawed." It is a peculiarity of oak, that the best grain is found in quarter-sawed boards. It is only in these that the "silver-grain" is seen. This consists of a ribbon of very hard substance which grows out from the centre of the tree. It is for this reason that oak is the most enduring wood: it has a grain two ways. All woods check in the direction of a radius from the centre. Quarter-sawed oak cannot check. — *Andrews's Guide to Church-Furnishing.*

THE LATEST PERIODICALS.

THE most interesting designs among the publications of the *Intime-Club* for August and September are four designs for the *Prix Rougevin*, the subject being a catafalque, — a highly decorated temporary structure whereon rests a body when lying in state. *La Semaine des Constructeurs* gives a short sketch of M.

Schneider, the well-known iron-master, and more lately statesman, against whose armor-plates the one-hundred-ton Armstrong gun is powerless; also an illustrated description of the palace or the Trocadéro; and speaks with amusing sarcasm of the two hundred dollars that the Department de la Creuse offers as salary to the successful candidate in the competition for the position of architect of the department. The *Building News* gives the proposed plans for the Johns Hopkins Hospital at Baltimore; the façades and many of the details of the now notorious building of the Messrs. Doulton; and like illustrations of the Derby Free Library and Museum. The most noticeable article is "Artistic Manufacture," which is a review of Mr. Poynter's paper on the Influence of Art on a Nation, lately read at Liverpool. The most important thing in the *Builder* is Mr. Barry's opening address, which we mention elsewhere. "The History of Gas-Lighting" is of some general interest. Under the caption, "What Style Next?" is given the opening address of Mr. Boyes before the Architectural Association, which we commended in our last number. The illustrations are the American Protestant Church at Rome, by Mr. Street, and the proposed palace on the Trocadéro. The opening address to the Edinburgh and Leith Engineers' Society given in the *British Architect*, touching on many of the more important engineering undertakings of the past year, is very instructive. In another paper the properties of fir and pine timber are discussed from the engineers' point of view. The first of a series of descriptive articles on the Sheffield trades is also given. In "The Results of Engineering" in the *Architect*, Prof. Jenkin makes this remarkable statement: "The arts which are concerned in the production of beauty are all, save one, strangers to us; and, even though the province of architecture is our natural heritage, we have failed to claim our right." The editorial comments characterize Mr. Barry's opening address before the Institute as eminently practical. Mr. Huggins protests vehemently against the restoration of the old cathedrals. The merits of his arguments can be judged by his stating that the usual mode of restoration was "suited, perhaps, to utilitarian or engineering works, but fatal to those of a soul-born art;" that if you "envelop the whole of the cathedral in new stone you do not restore its primal beauty, for that is impossible; but you destroy all relics of that beauty."

NOTES AND CLIPPINGS.

STATUE OF DANIEL WEBSTER. — The statue of Mr. Webster, formally presented to the City of New York by Mr. G. W. Burnham on the 25th ult., is described as follows: —

The statue is fourteen feet high, and stands on a pedestal twenty feet in height; and it is on account of its colossal size that the largest open space in the park has been selected as its site. It is made of bronze, and weighs about six tons. The statue and pedestal together weigh about a hundred and twenty-five tons. It represents the statesman in his characteristic attitude when about to address an assemblage, and his dress is a faithful copy of the costume in which he was wont to appear on all public occasions. A cloak is thrown loosely on the ground, and his right hand is placed in the breast of his coat, as was his habit when speaking. The work was designed by Thomas Ball of Florence, a former native of Boston, and an old-time friend of Daniel Webster. The statue was modelled at Florence, and cast in the great foundery of Munich by Muller. The pedestal on which the statue stands weighs a hundred and nineteen tons, and was designed by Batterson, Canfield, & Co., of Hartford, Conn. It is made of the best Quincy granite, and a single stone weighs thirty-three tons. On the base of the pedestal, in the front, is the simple inscription, "Daniel Webster;" and in the rear is the name of the donor in raised and polished letters.

THE BOSTON POST-OFFICE EXTENSION. — The title to the entire square in which the Post Office is situated will soon be vested in the Government. The agents or owners of the two remaining parcels of ground to be added to the site of the building have agreed to sell the land to the Government without further litigation upon substantially the same basis as the purchase of the Wigglesworth tract, and the Merchants' Insurance Company's site, was effected, and will consent to have a verdict entered upon that basis. The Secretary of the Treasury will recommend the necessary appropriation to complete the purchase.

FALL OF A FLIMSY BUILDING. — On the afternoon of Nov. 24, while workmen were engaged on the new range of buildings at the corner of Forty-first Street and Girard Avenue, Philadelphia, the front part of one of the houses fell out, burying in the ruins one of the workmen. On being rescued he was found to have sustained severe injuries. The building which fell was one of a row of three-story dwellings which have been completed as far as the roof. In the second story of each an aperture has been left for a bay-window, and it was while on the sill of the window that the victim of the accident was caught. It is thought that he will recover.

MASONIC HALL. — A new Masonic Hall has just been erected at Quincy, Mass., after the designs of Messrs. Starbuck and Vinal.

THE CHICAGO COURT-HOUSE AGAIN. — Some of the members of the "Ring" having failed of re-election was the cause of the iron and masonry contract being awarded more quickly than any other contract hitherto. The *Tribune* states that the proceeding was palpably dishonest and indecently hasty. Although separate bids were called for, it was voted to award the work to a single man, — Mr. P. J. Sexton, — for $328,163, although had separate bids from unimpeachable parties been accepted, $13,000 would have been saved.

MOVING A CATHEDRAL. — An exchange states that a stone cathedral is being moved [raised?] in Chicago. Five hundred large jack-screws are employed.

MEMORIAL WINDOW. — A memorial window to the memory of Hon. W. F. Wheeler was recently placed in St. James Episcopal Church, Keene, N.H. On it is represented Justice with evenly balanced scales.

A LIGHT-HOUSE IN DANGER. — It is stated that during the past two years the beach in front of the light-house at Atlantic City, N.J., has been washed away for the length of some three hundred feet. Engineers are now devising measures for the protection of the Government property.

THE STATE CENTENNIAL BUILDINGS. — The Massachusetts Building, sold for $1,500, is to be re-erected near Boston; the Iowa Building, sold for $575, is to be removed to New Jersey; and the Illinois Building is to be moved a few miles from Philadelphia, and there set up.

A PROSPEROUS BUILDING ASSOCIATION. — The German Building Association No. 2, of Cumminsville, O., has closed with the payment of thirty-three per cent dividend per share. The association consisted of 658 shares, and ran out in six years and a half. During that time the association was not troubled with any suits, not a dollar was stolen, nor were books burned or spirited away.

CATHEDRAL IN NEWFOUNDLAND. — Sir G. G. Scott has furnished the designs for completing the cathedral at St. John's as a memorial to Bishop Feild.

A TALL LIGHT-HOUSE. — The *British Mail* says, "The firm of Call & Co. have begun the construction of the great light-house which is to stand on the brow of the Trocadéro, in Paris, during the Great Exhibition of 1878. The light-house, 413 feet in height, has been ordered for Plymouth, and its white and red lights will be seen seven leagues on the main. It will contain ten rooms for attendants, two provision bunkers, an infirmary, and a bedroom with ten beds for the shipwrecked. About fifty metres (162 feet) above the level of the sea a movable annular plate is provided, carrying a big cannon for shooting the salvage-line within a range of eight thousand to ten thousand meters. Near the base of this gigantic pharos there is a complete and improved lifeboat arrangement, which allows of a lifeboat being lowered by one man."

WATER AT LIVERPOOL. — It appears that in some cases the sewers of Liverpool are tunnelled through the solid red sandstone, which, because of the geological formation of the ground, supplies daily millions of gallons of water to the wells of the city. It is not improbable that the influence of the pumps in lessening the resisting pressure of the well-water has allowed and even assisted the ingress of polluted water from the sewers.

ARCHITECTS OR SOLDIERS? — The British Government is doing what it can to degrade architects in their own estimation, and in that of the public; for not only does it allow the War Office to invite "saddlers, architects, tailors, &c.," to enter the army as privates, but it is now considering the advisability of discontinuing to employ architects of high attainments, and instead of so doing to employ simply salaried officials and clerks, — a scheme quite worthy of Mr. Ayrtoun.

THE HAMBURG TOWN HALL. — The competition for the Hamburg Town Hall was lately decided; Herren Milius and Bluntschlie of Frankfort on the Main receiving the first prize of ten thousand marks. Of the seven designs receiving prizes of five thousand marks, two were by Hamburg architects, two by Viennese architects, two by Berlin architects, and one by a Dresden architect. No French architects competed.

ARCHÆOLOGICAL DISCOVERIES AT BONN. — The London *Examiner* says that at Bonn, on the Rhine, on the occasion of the erection of a new building connected with the University, remnants of Roman houses have been found, showing signs of a conflagration, — probably the result of a struggle between Germanic tribes and the Roman settlers. On the wall of one of the houses there were beautiful frescos, which unfortunately broke in pieces when taken out. The picture represents an Amazon on a horse, with a lance in her right hand, her mantle driven back by the wind. Near her there are some foot-soldiers, who, so far as can be seen, appear to parry her thrusts. The colors are well preserved. A bronze statue, representing a fine youth, probably a charioteer; a little votive altar, with a much-mutilated inscription; a potter's oven, with many urns and tiles; numberless objects for every-day use, such as dishes, cups of black clay with an inscription in white, bottles large and small, buckles, dice, pencils in ivory or bronze with ornamented tops, coins contained in urns of partly colossal dimensions, and many other things, — were dug up at the same time. These discoveries have been made along an old, well-known Roman high-road. The excavations are still continued under the supervision of the Bonn Society of Archæologists, whose president is Prof. Weerth.